UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/697,362	10/30/2003	Peng Lin	SAM2.0033	7883

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EXAMINER
KRASNIC, BERNARD

ART UNIT	PAPER NUMBER
2624	

MAIL DATE	DELIVERY MODE
07/16/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
Advisory Action	10/697,362	LIN ET AL.
Before the Filing of an Appeal Brief	Examiner	Art Unit	
	Bernard Krasnic	2624	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 06 July 2007 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same d ay as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of App eal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

    a) ☐ The period for reply expires_____months from the mailing date of the final rejection.

    b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

        Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the ped of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismi ssal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of fil ing a brief, will **not** be entered because

    (a)☐ They raise new issues that would require further consideration and/or search (see NOTE below);

    (b)☐ They raise the issue of new matter (see NOTE below);

    (c)☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or

    (d)☐ They present additional claims without canceling a corresponding number of finally rejected claims.

        NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL -324).

5. ☐ Applicant's reply has overcome the following rejection(s): _____.

6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).

7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

    The status of the claim(s) is (or will be) as follows:

    Claim(s) allowed: *5-12 and 17-24*.

    Claim(s) objected to: _____.

    Claim(s) rejected: *2-4 and 14-16*.

    Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of fi ling a Notice of Appeal will **not** be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).

9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will **not** be entered because the affidavit or other evidence failed to overcome **all** rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).

10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Continuation Sheet.

12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). _____.

13. ☐ Other: _____.

JINGGE WU
SUPERVISORY PATENT EXAMINER

Continuation of 11. does NOT place the application in condition for allowance because:
Applicant's arguments filed 7/06/2007 have been fully c onsidered but they are not persuasive.

The Applicant alleges, "Claims 5, 7, 17 ..." in page 18, and states respectively that claims 5, 7, 17, and 19 have been rewritten in independent form including all of the limitations of the base claims and any intervening claims. The Examiner agrees and therefore the Examiner has marked claims 5 -12 and 17-24 as allowed.

The Applicant alleges, "As the Examiner agrees in the instant ..." in page 19, and states respectively that May fails to disc lose or fairly suggest limitations (i) and (ii). The Examiner as stated in the Final Office Action, agrees that the May reference fails to disclose or fairly suggest limitations (i) and (ii).

The Applicant alleges, "As such, it is clear th at ..." in page 20, and states respectively that Avinash contradicts the claimed limitations where detecting a local edge direction follows computing a plurality of 1 -D local variances. However the Examiner disagrees, because as the Applicant has stated that Avinash teaches that the structures (including the edges) must be identified first and then other steps can follow does read on the claimed limitations. Avinash teaches that the structural pixel information is used to determine the dominant orientation which will be used for smooth filtering. What this actually means is that first the structural pixel information is gathered, then the 1-D local variances for the four directions [vertical direction, horizontal direction, 45 degree direction; and 135 degr ee direction] are calculated [see Avinash, Fig. 12], then using the direction of the minimum variance is selected from the four computed values and it is this dominant orientation direction which will be smooth filtered [see Avinash, col. 10, lines 43 -67, col. 11, line 1]. Therefore like the claimed limitation of claim 3, Avinash discloses computing a plurality of 1 -D local variances / four directional statistical variances along multiple directions / four directions through the given pixel / each pixel in the window / 3x3 window, and detects a local edge direction / dominant orientation by selecting one of the directions with the smallest 1 -D local variance / minimum variance, and filters / smoothes the given pixel using these statistics to reduce image no ise. Therefore Avinash does disclose and teach first calculating 1-D local variances and then secondly detecting the local edge direction / dominant orientation.

The Applicant alleges, "Further, Applicant respectfully submits ..." in page 20, and states respectively that Avinash doesn't include the claimed limitations because Avinash already identified the structures (including the edges) without seeking the 1 -D local variance. The Examiner once again disagrees as discussed above because Avinash uses the structural pixel information, then calculates the 1-D local variances for the four directions and then selects the direction with the minimum variance to be the dominant orientation / detecting edge direction for smoothing.

The App licant alleges, "As further clearly seen ..." in page 20, and states respectively that the dominant orientation is not the same as or equivalent to the claimed edge direction. The Examiner disagrees as discussed above because just as the claimed edge direction limitations states, Avinash's dominant orientation is determined by selecting one of the directions with the smallest 1 -D local variance.

The Applicant alleges, "This is further evident from the fact ..." in page 21, and states Avinash teac hes variances for pixel kernels are calculated and not the local variances along multiple direction through the given pixel in the window. However the Examiner disagrees as discussed above and because Avinash clearly states that "within a local neighborho od surrounding each structural pixel, statistical variances for pixel kernels in four directions are computed" [see Avinash, col. 10, lines 63 -65]. This kernel is like the 3x3 neighborhood window which is used in Fig. 12 with the given structural pixel be ing the center since the local variance is being calculated for the structural pixel with its neighborhood of surrounding pixels.

The Applicant alleges, "Furthermore, it is respectively submitted ..." in page 21, and states respectively that Av inash identifies a direction of minimum variance for each structural pixel based on smoothed values of structure and not along multiple directions through the given pixel in the window as claimed. However the Examiner disagrees as stated above because Avi nash clearly states that "within a local neighborhood surrounding each structural pixel, statistical variances for pixel kernels in four directions are computed" and that the direction of the minimum variance is used as the dominant orientation direction / local edge direction which is used to smooth filter the pixel. This kernel is like the 3x3 neighborhood window which is used in Fig. 12 with the given structural pixel being the center since the local variance is being calculated for the structural pixel with its neighborhood of surrounding pixels.

The Applicant alleges, "Moreover, while May is directed to reducing spatial noise ..." in pages 21 -22, and states respectively that Avinash teaches calculating 1 -D variances first and then identifyi ng the structures and that this teachings have no motivation for combination because the modification would render the prior art May unsatisfactory. However the Examiner disagrees firstly because Avinash teaches the structural pixel information is gathere d, then the 1-D local variances for the four directions [vertical direction, horizontal direction, 45 degree direction, and 135 degree direction] are calculated [see Avinash, Fig. 12], then using the direction of the minimum variance is selected from the f our computed values and it is this dominant orientation direction which will be smooth filtered [see Avinash, col. 10, lines 43-67, col. 11, line 1]. Therefore like the claimed limitation of claim 3, Avinash discloses computing a plurality of 1 -D local variances / four directional statistical variances along multiple directions / four directions through the given pixel / each pixel in the window / 3x3 window, and detects a local edge direction / dominant orientation by selecting one of the directions with the smallest 1-D local variance / minimum variance, and filters / smoothes the given pixel using these statistics to reduce image noise. The motivation as stated in the Final Office Action is to modify Mays filter by using Avinash's dominant orientation d irectional smooth filter to provide a more sophisticated adaptable filter in order to enhance the appearance of digital images [see Avinash, col. 1, lines 8 - 14]. In response to applicant's argument that there is no suggestion to combine the references, th e examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themsel ves or in the knowledge generally available to one of ordinary skill in the art. See In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the motivation as stated in the F inal Office Action is to modify Mays filter by using Avinash's dominant orientation directional smooth filter teachings in order to provide a more sophisticated adaptable filter in order to enhance the appearance of digital images [see Avinash, col. 1, lin es 8-14].

As discussed above, claim rejections for claims 2 -4 and 14-16 are maintained and therefore the claims are not in condition for allowance.